The British Red Cross Society

Home made aids for Handicapped People

51 - Ouds + Devices

Home made aids for handicapped people





The British Red Cross Society

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HOME MADE AIDS for handicapped people

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First Edition 1964

Second Impression 1964

Revised 1969

Revised 1974

Foreword

THIS is a revised edition of the book "HOME MADE AIDS for the disabled", first published in 1964 under the title "practical aids for the disabled".

The book contains instructions for making simple aids and this edition includes a section on Toys for handicapped children.

The aids are designed to reduce the effect of some of the handicaps of disabled people by helping them to become more independent in their daily lives, and have been so arranged in these pages to take a disabled or infirm person through a normal day, from the time of getting up to bedtime, with suggestions for the work-aday and recreational aids that may be found useful during the hours between.

Many of the aids have been invented and made for their own use by men and women, who either are permanently disabled, or while they were temporarily handicapped, from materials that are easily obtainable and within the reach of most people. At first glance the reader may be surprised at the simplicity of some of the ideas; but the number of requests the Society has had for these aids proves how much they are in demand and how much they have been appreciated by those to whose notice they have been brought.

We know, too, that one good idea often gives rise to another; and the disabled man or woman scanning these pages may think of an improvement on an existing aid, or even invent a fresh one that better suits his or her particular disability. Should that be so, the book will not have failed in its purpose; for the Society has always encouraged people who have devised ingenious ways of overcoming their disabilities, or thought out improvements on those already in use, to tell us about them. This is, in fact, how the collection of aids has been brought together and many useful ideas have been shared and exchanged.

In giving an aid to a disabled person, there is one point the Society always stresses; and again does so to all those into whose hands this book may come: CONSULT THE DOCTOR FIRST BEFORE YOU GIVE AN AID. This is most important; for the doctor may be trying to encourage the use of a particular limb without an aid, and it would indeed be sad if an intended kindness were to undo all the doctor's good work.

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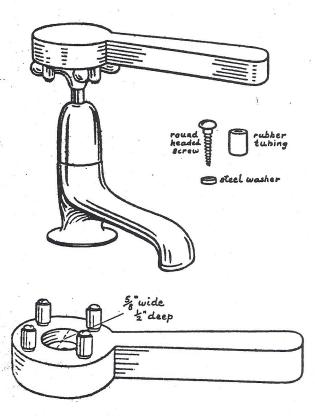
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INTHEBATHROOM

Tap Turner FOR SOMEONE WITH A WEAK GRIP



MATERIALS REQUIRED

A piece of smooth wood; four $l\frac{1}{2}$ in. round-headed screws; four $\frac{1}{4}$ in. steel washers; a piece of rubber tubing about 4 in. long.

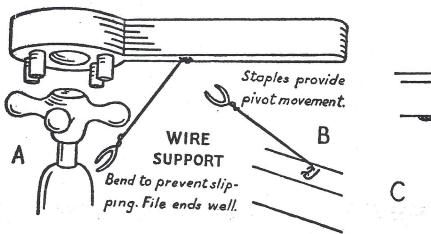
FROM a piece of hard wood (beech, ash or mahogany) 1 in. thick, cut out the shape of the tap turner as per diagram, in one piece, with a fretsaw. (Overall length about $6\frac{1}{4}$ in., diameter of circular head $2\frac{1}{4}$ in.).

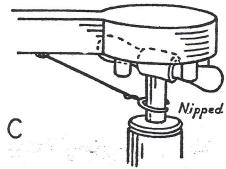
With a $\frac{1}{8}$ in. gimlet, hollow out the centre of the circular head to a depth of about $\frac{1}{2}$ in. to fit over the domed part on a tap handle, and to allow the tap turner to rotate more freely.

Next, mark off the positions for the four screws on the circular head, making sure that these are spaced correctly to correspond with the spaces between the prongs on the handle of a tap. Make the four holes for the screws first with a small $\frac{1}{6}$ in. drill to a depth of about $\frac{1}{6}$ in. These holes must be drilled first of all, before the screws are inserted, or the wood will split.

Slip the steel washers on to the round-headed screws and push up to under the heads. Cut the rubber tubing in lengths of about $\frac{3}{4}$ in., and slip them over the screws, pushing them up to meet the washers. Put a smear of soap on the screw-heads, to help them to go in more easily. Then screw them gently into the holes prepared for them to a depth of approximately $\frac{3}{8}$ in.

Finally, if you wish, you can sandpaper the tap turner and make a professional-looking job of it.





Attachment to tap-turner

THIS device to keep the Tap-Turner fixed firmly and permanently on the tap-handle means that the tap can be turned on or off with the elbow and the aid is not limited to the use of a disabled person only. (It occurs to us that many housewives will be attracted to the idea of this permanent fixture on their kitchen taps, which can be turned on and off with the elbow when pastry-making and doing other messy jobs.)

KEY TO DRAWINGS

- A The piece of wire (shown in the diagram) is about 6 in. long and can be bent to the required shape to fit round the stem of the tap handle quite simply.
- B Shows the tap-turner aid in position, with the wire support holding it in place so that it need not be removed after use.
- C The wire support can equally well be fixed to the handle of an oldfashioned type of tap.

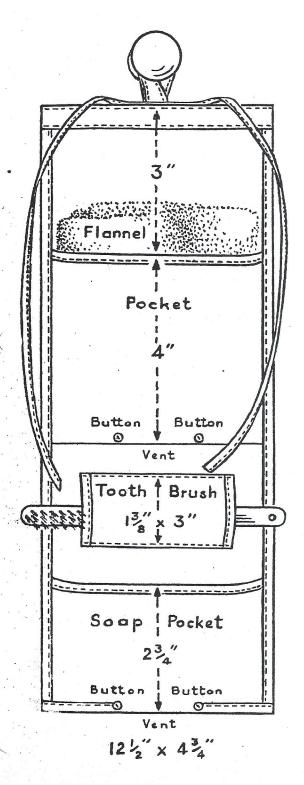
Long Handled Sponge and
Toe Washer

A long handled sponge can be made by twisting wire and adding a sponge to the end.

An aid to wash the toes can be made in a similar way, using a smaller piece of sponge.



Soap and sponge holder



THE difference between this soap and sponge holder and one you can buy in the shops is the air vent along the bottom of the pockets which are buttoned instead of being stitched up. This allows the water to drain away and the air to get at the various toilet articles, helping them to dry quicker and keep fresh. This is useful in the case of someone who has not much strength in his or her hands to wring out a sponge or face-cloth properly.

The use of a suction cup, so that the holder can be hung up by its loop on a wall, or the most convenient place

within reach when bathing, is another helpful tip.

The uses of suction cups

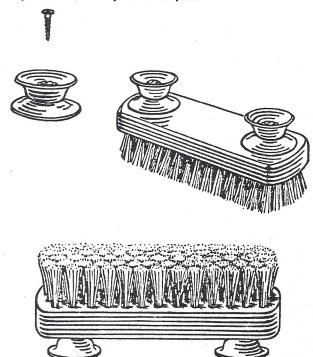
ONE of the problems facing people who have the use of only one hand is how to keep steady an object they are using without a hand to hold it. Suction cups are especially useful because they can be fixed to a variety of articles in everyday use, such as a nail-brush for example, which needs the use of two hands.

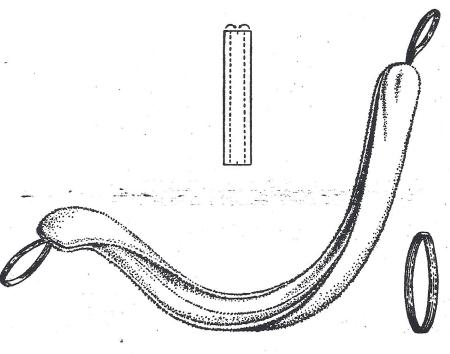
There are two types of suction cup. The one illustrated is the SINGLE kind, which has to be attached by a screw and is, therefore, limited to wooden articles and those made of materials that will take a screw.

of materials that will take a screw.

THE DOUBLE SUCTION CUP, while probably more general in its uses because it can be attached to china, glass and enamelware, requires a polished surface to adhere to.

Do not forget that suction cups need moistening before they will stick to a polished surface.





Towel with wristbands

DEVISED for people with limited mobility in their arms to help them to dry themselves after washing and bathing.

MATERIALS REQUIRED

One Terry towel, average size (approximately 34 in. by 15 in.).

Two pieces 1 in. elastic each about 11 in. long and two pieces of narrow ribbon to cover seams.

Join the two sides of the towel together to form a tube. Flatten out so that the seam lies in the centre. At each end seam the edges together and gather them. Fold the gathered end in half and join.

Join each piece of elastic together to form wrist bands. Cover the joins neatly with the ribbon and use to attach a wrist band to either end of the folded towel.

Washing aid

AS an aid to washing, a face-flannel gathered and tied over the head of an ordinary dish-mop has been found to be of great assistance to anyone who is unable to stretch or bend.

A coloured face flannel makes the aid more attractive.

Flannel Gathered

Dish Mop

IN THE BEDROOM

MATERIALS REQUIRED Dowelling 9 in. × 1\frac{1}{2} in. (or a piece of Broom Handle) Drill 3 holes as indicated Smooth edges. A-B Large Holes C-D Smaller Holes Tail Comb Holder

Comb grip with special handle

THIS aid is for people who are unable to grip an ordinary comb, or find it unmanageable due to their particular disability.

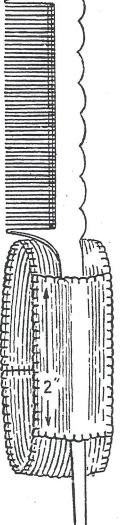
For it sufficient garter elastic is required to go twice round the hand, allowing for turnings. Cut the elastic in half and join up separately. Eventually these will be buttonholed together along the edges, one inside the other, to form the hand-loop. In addition, a small piece

Join

of the same elastic, 2 in. long, is required to stitch on to the hand-loop, making the slot through which the handle of

the comb is passed.

To keep the elastic from sagging and the loop ready open reinforce it between the double thicknesses of elastic with a piece of steel wire (an old clock spring can also be used), bent round to the correct size.



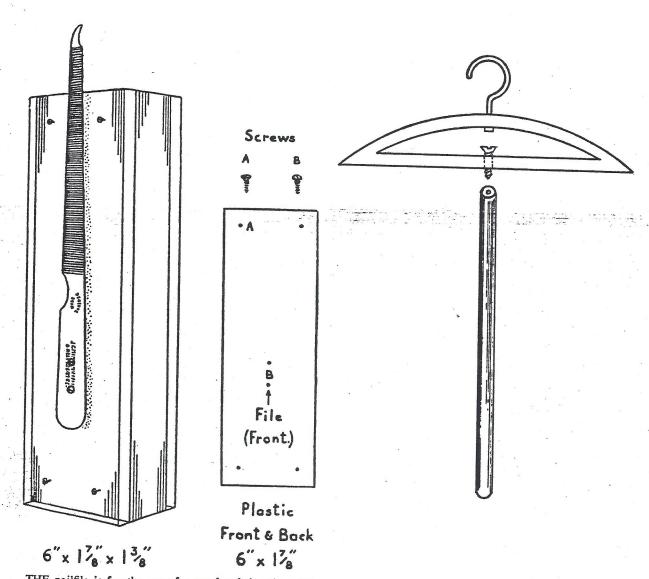
Long handled comb

This aid is made from a wooden coat-hanger cut to the required length with a tail comb inserted at one end, or attached to the hanger with screws.

CUT, about 3 in. off the length of a 17 in. coat-hanger, and remove the hook. Cut off the handle of the comb about 1 in. away from its head. To make the socket which takes the comb, drill three holes with a $\frac{1}{18}$ in. drill into the centre of the cut end of the hanger, taking care that your drill does not go off the straight as you are donot go off the straight as you are doing this. Gradually increase the size of the drill to \(\frac{1}{2} \) in. and go on hollowing out to a depth of 1 in. Work away with a small wood chisel until the holes you have drilled merge into an oblong slit large enough to take the bit of comb handle. Clean out the socket and insert the comb out the socket and insert the comb. Fill up any space around it with plastic wood and allow to set.

A SIMPLER method of making this aid is to lay the comb handle—which in this instance is left uncut—in position along the coat-hanger so that the cut end lies flush with the head of the comb. Drill two or three holes through the handle of the comb, and screw it on to the coat-hanger with two or three small wood screws. This does not make such a neat-looking job of the completed article, but it is quite serviceable.

Captive Nailfile



THE nailfile is for the use of a one-handed patient. To make it you will require a block of hard wood 6 in. long by 1½ in. and 1½ in. thick; a nailfile 5½ in. long; transparent Perspex ½ in. thick to cover the front and back of the block of wood; eight small flat-headed and two small round-headed screws.

Cut the Perspex to shape and screw it on as indicated in the diagram, countersinking the small flat-headed

Drill two small holes through the handle of the nailfile and using the small round-headed screws, screw it on

to the Perspex-covered wooden block, with the tip of the nailfile extending $\frac{1}{2}$ in, beyond the edge of the block.

It is suggested that two double-suction cups be used to stick the wooden block to a tiled Formica or other smooth surface to ensure it keeps rigid when the file is being used.

Alternatively, the Nailfile can be backed with non-slip fabric, i.e. Pimple rubber "Dycem" Plastic sheeting.

Long Handled **Coat Hanger**

A length of dowelling screwed into a hanger, helps those with a limited reach to hang clothes in the wardrobe,

A Dressing Aid

THIS Dressing Aid is used in pairs and holds firmly the stockings, socks or clothing which cannot be put on without some such assistance. The rubber ring is an additional help for those with impaired strength in their hands.

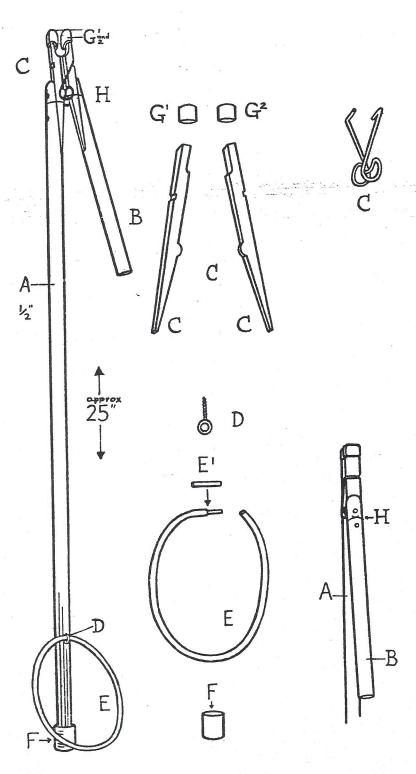
The aid can also be used to hold a sponge or face cloth.

MATERIALS REQUIRED

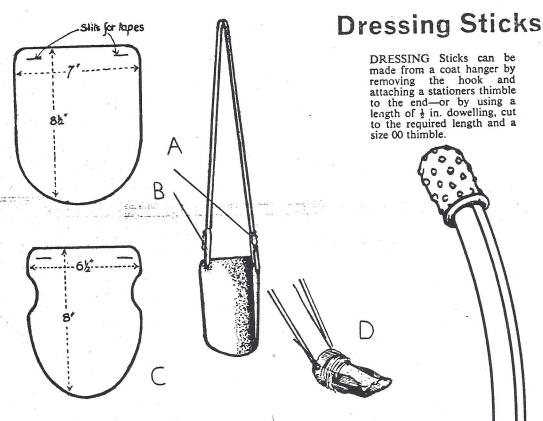
One \(\frac{1} \) in. dowel stick (A) obtainable at a timber merchant's or handcraft shop, approximately 25 in. long and another piece of dowel stick (B) 7 in. long. C is a spring clothes peg; D a small screw-eye, the hole through the screw-eye must be large enough to take the rubber tubing E. This rubber tubing is 12 in. in length (windscreen wiper tubing obtainable from a garage). One small wooden peg I in. long (EI), to join up the ends of the rubber tubing when assembled through the screw-eye, forming the ring for the hand-grip. F is a piece of rubber tubing about I in. long to slip on the end of A; G two \(\frac{1}{2} \) in. lengths of rubber (gas) tubing to fit over the ends of the clothes peg C.

Dismantle the clothes peg; cut away ends of A and B to a depth of 1½ in., to enable the ends of the clothes peg C to fit neatly as in the illustration. Fix C and C2 on to A and B with glue and small ½ in. screws. When the glue is thoroughly set, reassemble the clothes peg and spring (C3). Practice may be needed for this, and it is advisable to dismantle and reassemble the clothes peg before beginning work. Pieces of wire (H) may be used to hold the spring in place, if this is found necessary. Slip the short lengths of rubber tubing G over the tops of the pegs and a short length of tubing F over the end of A.

Screw the screw-eye D into A approximately 2 in. above the rubber tubing. Thread the rubber tubing E through the screw-eye D, joining it together with peg E1 as in illustration.



Stocking puller-on



INSTRUCTIONS

A Vinvl tile 9 in. × 9 in. in size is used to make the gutter, the most suitable being the rather heavier type with a rough back.
Sharp scissors will cut the Vinyl to the shape and size as

Sharp scissors will cut the Vinyl to the shape and size as shown in diagram A, and fine sandpaper is used to smooth the edges; cut slits ($\frac{3}{4}$ in.) as indicated.

Thread the length of tape (28 in. \times $\frac{3}{4}$ in.) through the slits and sew on suspenders in the position shown on diagram B. The same Aid can be used for pulling on socks by omitting the suspenders and cutting gutter as shown in diagram C.

TO USE THE STOCKING GUTTER

GATHER up the stocking down to the toe and slip it over the gutter, fixing the suspenders to the top of the stocking.

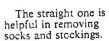
Put the gutter on the floor in front of the foot, allowing it to rest on the ground whilst sliding the foot into the opening and keeping it steady by holding the tapes. Do not pull the tapes until the foot has reached the toe of the stocking. When the foot is in the stocking opening, start pulling alternately on the tapes until the gutter draws the stocking

When the stocking has been pulled high enough for the matient to reach, undo suspenders and remove gutter. (diagram D)

TO USE SOCK GUTTER

CATHER up sock down to foot and slip over gutter (the gallered part held in the indentation). The user's toes hould be pushed well down into the sock before pulling gently on the tapes.

The curved stick is useful for removing cardigans etc. from the shoulders as the thimble will cling to the clothes. A notch can be cut in the other end to help in pulling up shoulder straps, or a cup-hook screwed into the end.



Phrase Board (Pictorial)

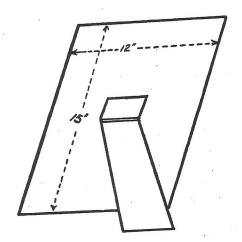
Take a sheet of stiff card size approx. 15 in. × 12 in. Cover (if necessary) with natural coloured textured wallpaper From a colour magazine cut out pictures of day to day requirements

i.e. Cup and Saucer with the words "Tea", "Coffee" etc. written beside it Glass with the words "Lemonade", "Orangeade" etc.

Pepper and Salt pots.

Add: The Alphabet (in large clear letters)
The words "Yes" and "No"
Useful sentences i.e.
"Please open the window"
"Turn on the radio" etc.

When the board is nicely full (but not overcrowded) cover the surface with clear 'Contact'





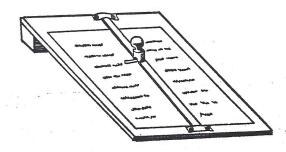
Phrase Board (Magnetic)

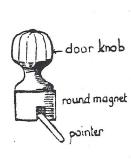
MATERIALS

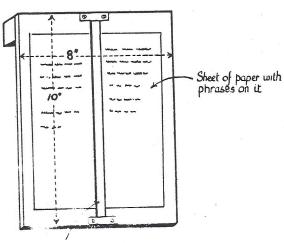
7½ in. ×10 in. 5 ply
7½ in. 1 inch square soft wood
Glue Glue
\$\frac{1}{1}\text{in.} \times 10 \text{ in. steel strip}\$
\$4 \text{ screws}\$
Round magnet
Door knob
\$1 \text{ in. strip (for pointer)}\$
Sheet paper

TO MAKE

Smooth edges Smooth edges
Stick 1 in. square soft wood to back
Write or type phrases to paper and stick in position
Screw on steel strip as indicated
Assemble pointer







Magnetic steel strip .

Bed-Tidy

THE Tidy is devised to keep every-thing within reach for a bedridden person. It is made out of a length of material sufficient to go across the bed and hang down at least 18 in. on either side. The pockets are made in different sizes to hold various articles: for example, a large pocket on the Tidy, hanging over the right of the bed is for news-

papers; two small pockets take a handkerchief and a comb; others can be made as required to hold a pen, pencil and a face cloth (the pocket for the latter should be lined with iscorpet) with jaconet).

In the centre of the Tidy is a pocket into which a firm piece of cardboard is slipped to act as a

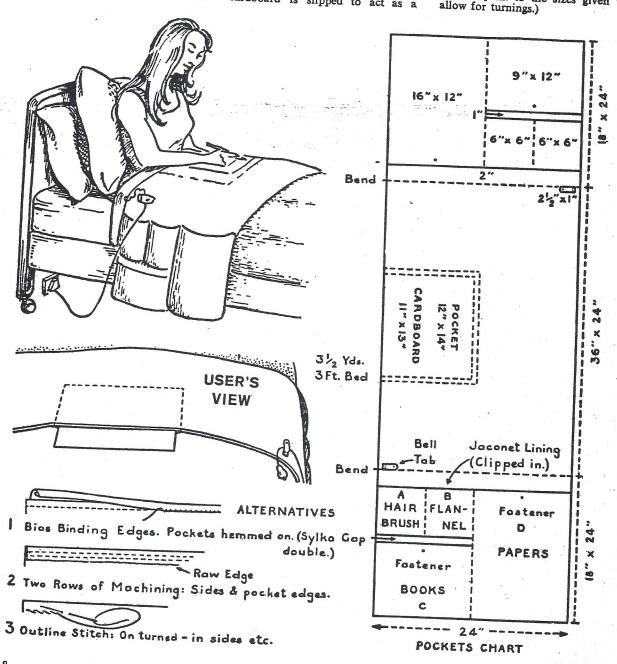
writing-board, and, as can be seen from the diagram, a small strip of material, sewn on at the appropriate place and fastening with a press-stud, keeps the electric bell in a handy place within easy reach for the patient.

(Add } in. to the sizes given to allow for turnings.)

bL

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in



IN THE DINING ROOM

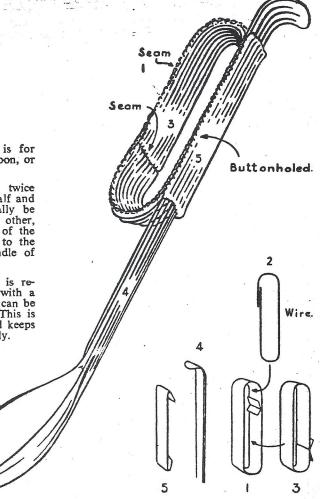
Perspex spoon

WITH EASY GRIP ATTACHMENT

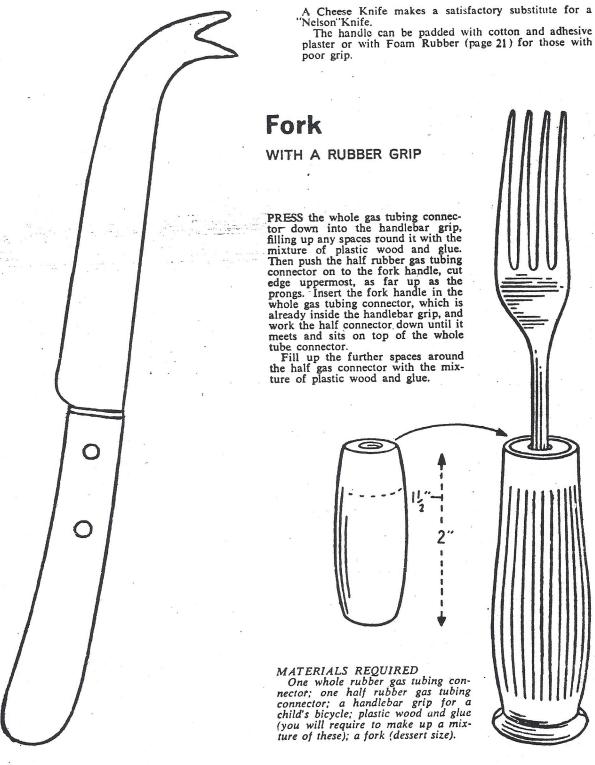
A PERSPEX spoon is used for this aid, which is for someone who is unable to grip an ordinary metal spoon, or finds it too heavy to hold.

You will require sufficient garter elastic to go twice round the hand and allowing for turnings. Cut in half and join up separately (1 and 3). These will eventually be buttonholed together along the edges, one inside the other, to form the hand-loop. In addition, a small piece of the relastic about 2½-3 in. long is required (5) to join to the hand-loop making the slot through which the handle of the spoon is passed.

As will be seen in the diagram, the hand-loop is reinforced between the double thicknesses of elastic with a piece of steel wire (or a piece of an old clock spring can be used for this), bent round to the correct size (2). This is important as it prevents the elastic from sagging and keeps the loop open for the hand to be slipped through easily.



Combined Fork and Knife



Knife, fork and spoon

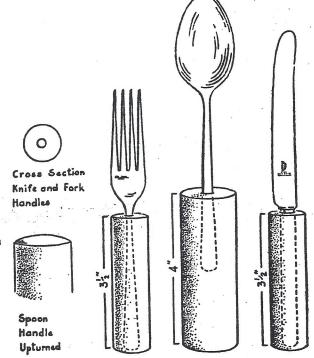
FOR PEOPLE WHO CANNOT GRIP EASILY

THE enlarged handles are made from foam rubber in various thicknesses and hollowed out in a variety of sizes (see table).

Cut the tubing with a sharp knife to the lengths required and from the thickness of foam rubber best suited to the particular person's grip, then fit the handles of the cutlery into the tubing. Should the fork, spoon or knife handle need padding to effect a perfect fit, this can be done by covering it with a piece of rubber tubing before pushing into the foam rubber handle.

FOAM RUBBER is obtainable from: The Nottingham Handcraft Co., Melton Road, West Bridgford, Notts., and in six different gauges:

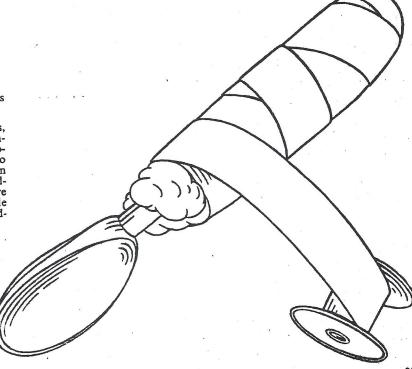
G.400		1 in.	diameter	붛	in.	bor	e i	in.	wall	thickness
G.401		1 in.	22	큥	in.	99	76	in.	99	99
G.402	•••	1 in.	99	1	in.	39	16	in.	99	99
G.403		1 in.	39	18	in.	99	1	in.	99	99
G.404	• • •	1 } ir	l. "	3	in.	. 99	1	in.	27	99
G.405		1 } is	1. "	7	in.	99	16	in.	99 14.	99



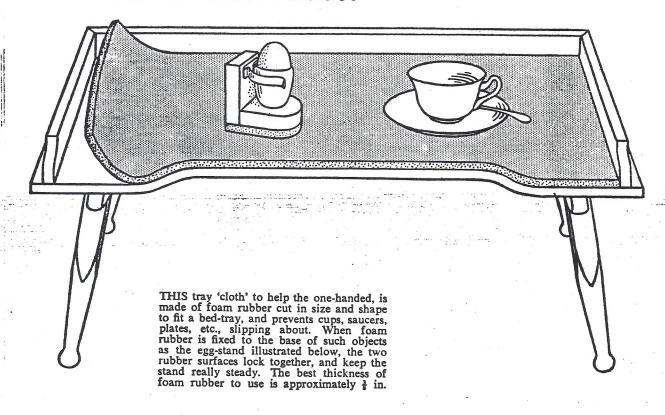
Padded spoon

FOR a person with arthritis, who has difficulty in gripping.

The handles of the spoons, forks, knives and many of the kitchen utensils (such as apple-corers and potatopeelers) they must use if they have to cook for themselves or a family, can be padded with cotton-wool or wadding covered with washable adhesive plaster. For many disabled people this simple aid helps to ease a hardship in their daily lives.



The uses of foam rubber



Egg-stand

FOR THE ONE-HANDED

MATERIALS REQUIRED

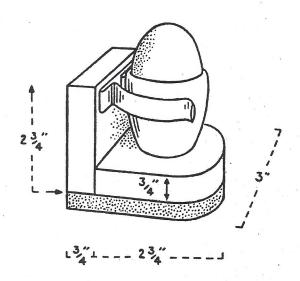
Two pieces of smooth hard wood in thick 2in by 3 in.
One Terry Clip No. 80/5 and two in screws
Foam Rubber
A plastic egg cup (the type with a stem is not suitable)

TO MAKE

ROUND corners of one piece of wood as illustration, screw other piece of, wood at right angles to the rounded piece.

Screw Terry Clip as shown (having first tried out where the clip should go).

Back with foam rubber.



IN THE KITCHEN

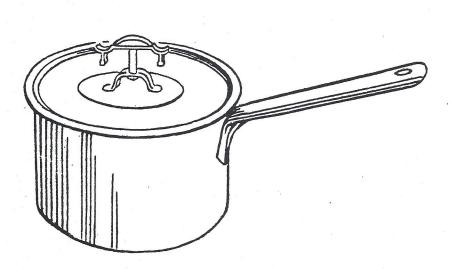
Pot Lid with enlarged handle

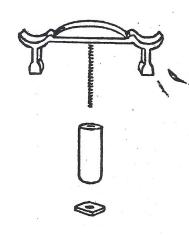
THE handle pictured in the diagram can be bought at Woolworths. It is made of chromium and plastic; the kind meant for screwing into a drawer or cupboard door to pull it open. The screw is part of the handle and the bolt is supplied with it when you buy it.

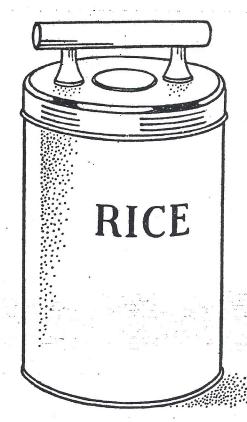
First drill a hole through the existing handle on the saucepan lid. Then drill a hole through the centre of a piece of (1 in. long) & in. dowel stick. Slip this over the screw of the door-handle before bolting the handle on the saucepan lid to it.

The handle thus raised gives more space and makes it easier for someone who has not much strength in his or her hands, or whose finger joints are swollen, to lift or replace a saucepan lid, either by grasping the handle from the top or by slipping the fingers underneath it.

The little piece of dowel stick acts as a good non-heat conductor when the existing handle on the saucepan lid is made of metal.







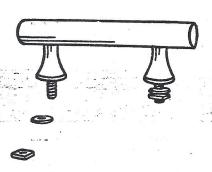
Aid for removing lids

MANY disabled people are unable to open their hands wide enough to grip the lid of a tin, canister or tea-caddy and it is usually difficult for them to hold a knob firmly enough to pull off a close fitting lid.

We suggest attaching handles to lids wherever possible. The one

We suggest attaching handles to lids wherever possible. The one shown in the illustration, made of plastic or other materials suitable for cupboard doors and chests of drawers, is easily obtainable and the nuts and bolts are supplied with it.

All you have to do is to bore holes in the lid, insert the handle and screw down the bolts. When choosing a handle, remember it is a help to a disabled person to have one that allows room for two or three fingers to be slipped under it for lifting.



GENERAL HINTS

To avoid lifting full kettles and saucepans from the sink to the stove, fix a PIECE OF FLEXIBLE HOSE PIPE to the water tap.

A WIRE BASKET used in the saucepan to cook vegetables, can be lifted out without the weight of water, and the danger of scalding.

If walking with sticks or a frame make it difficult to carry things around the house, use a WALKING TROLLEY.

A WOODEN STOOL at the same height as a shelf in the oven, helps disabled people to lift out hot tins.

For those with stiff or weak hands a WIRE PASTRY BLENDER is helpful.

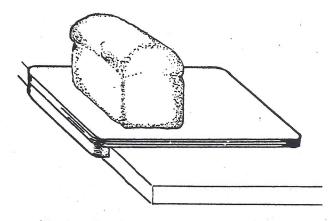
AN APRON WITH A POCKET is useful for carrying small articles around the house. Instructions for making one are given on Page 37

For those who need to walk with a stick a CNE-HANDED TRAY WITH A NON-SLIP SURFACE is useful.

JARS CAN BE HELD FOR OPENING by putting them in a drawer. Lean against the drawer to hold the jar firmly, whilst unscrewing the lid. Boxes of cereals and detergents can be held in the same way.

An APRON WITH A SPRING CLIP WAISTLAND can be put on with only one hand.

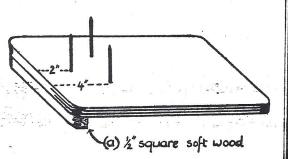
Bread Board



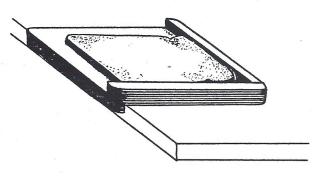
TO MAKE Smooth edges Screw stop (a) to board Drive spikes in on positions as indicated Back with pimple rubber or foam

MATERIALS

12 in. × 8 in. 5 ply
8 in. of ½ in. square soft wood
4 Rustproof screws
3 2½ in. point ends of knitting pins
Pimple Rubber or ½ in. foam rubber for backing



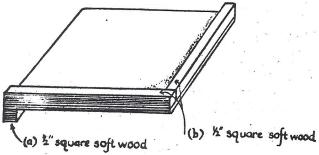
Bread Buttering Board



MATERIALS

8 in. × 8 in. 5 ply
14 in. of ½ in. square soft wood
12 Rustproof screws
Pimple Rubber or ½ in. foam rubber for backing

TO MAKE
Smooth edges
Screw stop (a) to board
Screw strip (b) as indicated
Back with Pimple Rubber or foam



SURE HOURS

Writing Board AN AID FOR THE PARTIALLY-SIGHTED

MATERIALS REQUIRED

131/x 91/

A piece of flat hardboard, shown here 13\frac{1}{4} in. by 9\frac{1}{4} in.

Two strips of wood, 13\frac{1}{4} in. long, \frac{1}{4} in. wide and \frac{1}{10} in.

thick to go down the sides of the board. A No. 7 knitting needle, 10 in. long. Six very small screws (countersink).

A small bull-dog clip to anchor the writing-paper to the board. Glue. Stain. Felt for the back of the board if desired.

CUT the flat hardboard to the correct size. Drill six small holes, spaced in from the edge of the board to take the strips of wood that go down the sides and

Bulldog Clip

Stained: making sure that the holes will avoid the notches hollowed out of the strips.

Place the two strips of wood side by side in a vice. Mark off the twenty-four notches, space \(\frac{1}{2}\) in. apart, making the incisions with a small saw. Starting \(\frac{1}{2}\) in. from the top and using a small round \(\frac{1}{2}\) in. Surform coarse-cutting file, make the corresponding notches (\(\frac{1}{2}\) in. deep) exactly opposite each other on the two strips

Remove the strips from the vice and to avoid splitting the wood, mark off the holes for the screws and drill them to take the screws.

them to take the screws.

Glue and screw the strips to the hardboard, making sure that the slots are exactly opposite each other.

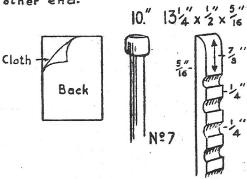
The No. 7 knitting needle, cut to the appropriate length (10 in.) has a knob on each end. Alternatively, a piece of dowel stick r_0 in. can be used instead of the knitting needle, in which case two knitting-needle ends can be glued to either end to stop the guide from sliding off the slots.

Finish off the completed board by varnishing and gluing felt on the back.

The purpose of this aid is to help a blind, or partially sighted person to keep his or her writing reasonably

sighted person to keep his or her writing reasonably straight and evenly separated, line from line, on the paper, by moving the guide (knitting needle or dowel stick) down from notch to notch.

False Wooden knob Needle's other end.



Magnetic writing aid Typing aid

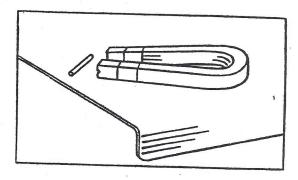
As a writing aid to keep the paper steady for a onehanded patient, this metal board with four magnets resting partly on the paper, partly on the board, has been devised.

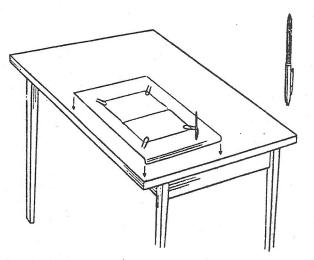
ANY ferrous metal, such as sheet steel, sheet iron or tin, would be suitable for making the board. One side of it bent, as shown in the diagram, to fit over the edge of a table, is an improvement to keeping it steady: but this is not essential.

Magnets are obtainable at stationers or toy shops. It is important to keep the small metal bars supplied with the magnets across the two ends when not in use,

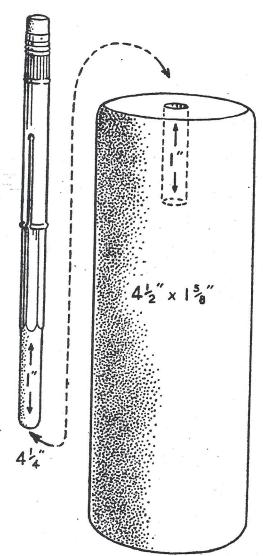
otherwise they are apt to lose their magnetism.

A metal protector cap on the pen or pencil will prevent it slipping off the board and rolling on to the floor out of reach.





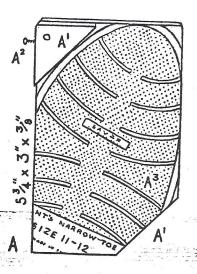
This aid is for a disabled person who uses a type-writer and who is without the use of his or her



CUT two pieces of round wooden curtain rod 44 in. long and 1½ in. in diameter (a similar length of broom handle, if it is thick enough and suits the user's grip, would do equally well). Using a ½ in. drill, hollow out sockets to a depth of 1 in. down the centre of each piece of curtain rod to take an ordinary pencil, which should fit into the socket tightly when it is inserted. when it is inserted.

The two pencils are the kind which have a rubber, or a cap with a rubber, on the ends. They are inserted into the sockets with the rubber end out and then used to tap the typewriter keys.

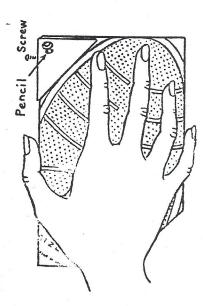
Pencil holder WOODEN REST WITH RUBBER SOLE ATTACHED FOR PEOPLE WITH RESTRICTED HANDGRIP



Hole re-emerges different place (Centre 12" from edges) cousing pencil to point diagonally towords centre.

A Upper side. Al Corner removed and then glued above. Hole centre in 4. (Pencil.) A2 Screw 3", sec uring 3" pencil. A3 Rubbersole. B Under side.

TAKE an oblong piece of smooth, hard wood 5½ in. long by 3 in. wide by ½ in. thick. This will form the base. Cut a triangular piece from the bottom right hand corner as shown in diagram (A1). Glue and tack this to the corner diagonally opposite. Drill a hole in this double corner, diagonally towards the centre and ½ in. from the edge, large enough to take the size of pencil required. Insert a very small roundheaded screw in the added section of the corner and on a level with the hole (see A2). When tightened this locks the pencil in the hole and holds it in position. Glue a rubber sole (men's size 11 or 12) to the upper side of the base as shown in diagram. When the glue has set take a sharp knife and trim off any surplus rubber overlapping the edges. overlapping the edges.

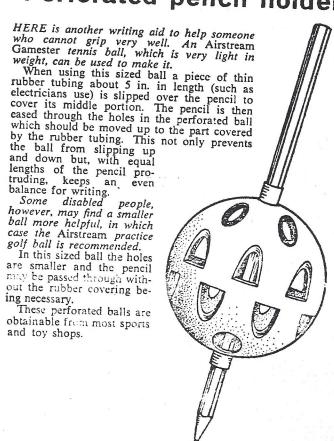


Perforated pencil holder

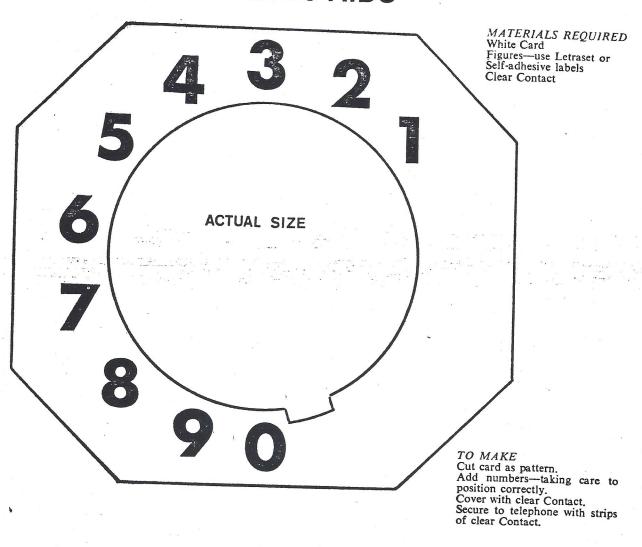
ing necessary.

These perforated balls are

obtainable from most sports and toy shops.



TELEPHONE DIALLING AIDS



MOST of us use an index finger or a pencil to dial the number we want but when your finger joints are too swollen to fit into the circles on the dial, or your hand too stiff and lacking the strength even to grip a pencil, this simple aid is the answer.

MATERIALS REQUIRED
Solid Evolite Perspex Tubing & dia x
10" long.

TO MAKE
Dip the tubing into boiling water to the depth required. Take it out and bend it round very gently.

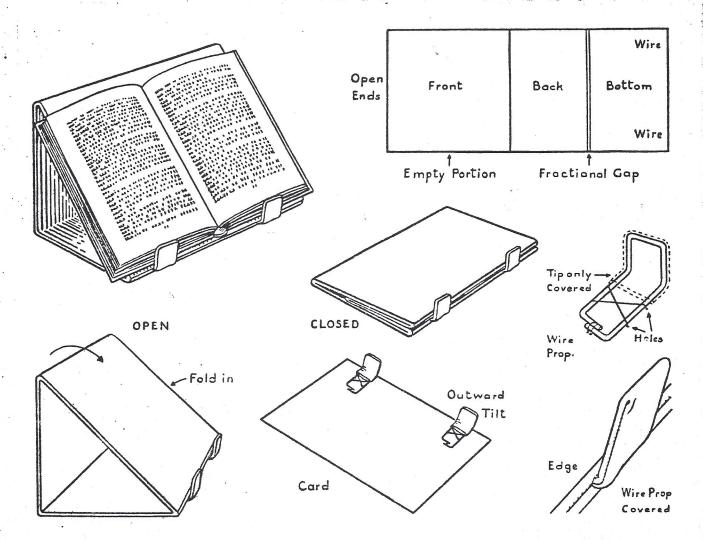
Bookrest-easy to make

MATERIALS REQUIRED

Two old book covers (hard) or two pieces of stiff cardboard; a piece of material sufficient to make bags to hold both the book covers (which form the back and bottom of the rest) and leaving enough over to form the front upon which the book rests, which should be half as long again as the book covers; two pieces of wire, each approximately 6 in. in length.

First make the bag to hold the book covers. Then make two holes at each side of one book cover (one 1 in. and the other 2 in. from the

sides). Bend the two pieces of wire as shown in the diagram and cover them with the material. Stitch them to the cover and bend them up to form props to hold the book in position. Sew up the open end of the bag. The empty end is then brought forward and joined to the other end.



Card holder/Book rest For a recumbent patient or one who is able to sit up in bed or in a chair

TO make the *Platform* (C), plywood 1 in. thick is required; measuring 231 in. by 9 in. when cut out.

Starting 11 in. from the top and 41 in. in from the sides of Platform,

Starting 1½ in. from the top and 4½ in. in from the sides of Platform, make twelve grooves or slots, ½ in. apart and 15 in. approximately in length. These must be grooved at a downward angle to take the playing cards and can be cut with a canting circular saw or, if very carefully done, using a fine tenon saw.

On the reverse side of the Platform, starting 1½ in. from the top make five grooves, or slots, 2 in. arart down the centre of the board. These are made with the same type of saw as that used for the slots on the front of the board, but must be grooved at an *upward* angle to take the hinged prop (D).

the hinged prop (D).

Now cut from a sheet of tin the four Suit holders and the two Pack holders to the sizes given in the diagram, shaping them to take the cards and tacking or screwing them to the

Platform, slightly at an angle as shown in the diagram.

The wooden Rest (E) is made from a 12 in. length of angled beading, glued and attached to the lower edge of the Platform, with two music supports screwed in at the appropriate places to hold the book conveniently in place.

The platform (A) is also cut from in. thick plywood and is 23½ in. long and 11½ in. wide when cut out. From the same thickness of ply-

From the same thickness of plywood and using a fretsaw, cut out the two flaps (B1 and B2) 12 in. long, attaching them to the sides of the platform (A) by means of two 1½ in. hinges (two to each side).

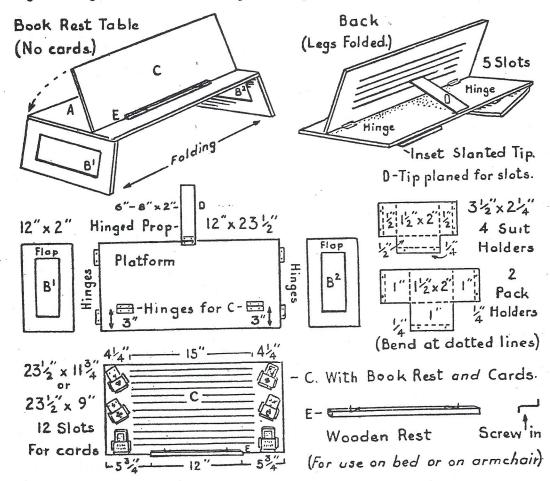
Newey's upholstery snap fasteners are used to hold the two flaps when they are folded up and the board not in use. Countersink the appropriate places where the snap fasteners should go, along the lower underside of each flap and correspondingly on

the reverse side of Platform A, and pin and glue them into the hollows prepared for them.

The wooden Rest (D), made of the same thickness of plywood, is 6 in. long and 2 in. wide. It is attached to the top edge of the platform with a 2 in. hinge. Chamfer, or bevel, the other end of the Rest so that it slots into the grooves made to hold it on the reverse side of the platform.

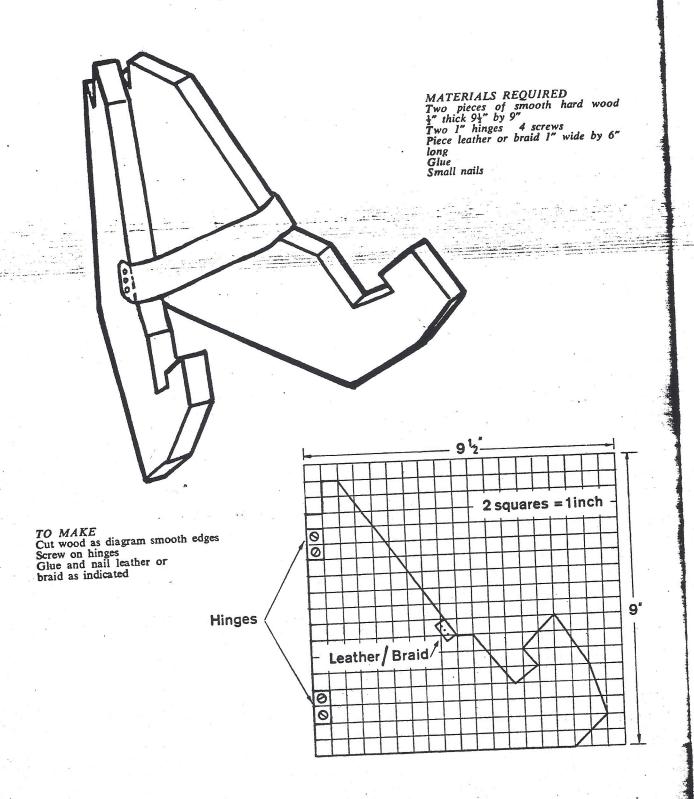
Use two 3 in. hinges to attach Platform (C) to Platform (A), taking care that the tops of the two platforms lie flush along each other when the board is closed.

The Book Rest Table can be finished off with glossy oak stain; the Suit and Pack holders being painted a lighter colour and marked respectively with the appropriate signs (Spades, Hearts, Clubs and Diamonds) and the words PACK HOLDER as indicated in the diagram.



Folding Wooden Bookrest

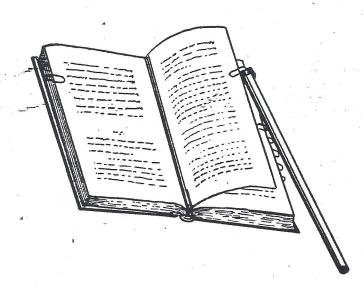
do ma P



Page-Turner Magnet

A useful page-turner can be made from a length of ½ in. dowelling cut to the required length and securing a light magnet to the end.

Paper clips are fixed to each page of the book and the rod is used to pick up the paper clips and turn the pages.



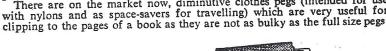
Page-turner

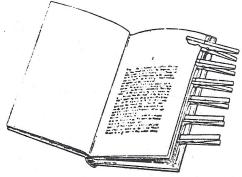
FOR anyone who has difficulty in gripping, or who cannot manage to separate the leaves of a book satisfactorily, clip a clothes peg to the edges of each page, as shown in this diagram, and they can be turned over quite

easily.

Paper clips may also be used, and though they are not as satisfactory as clothes pegs, particularly when people have lost the sensitivity in their fingers, they have the advantage of taking up less space and many more pages can be prepared beforehand for the reader.

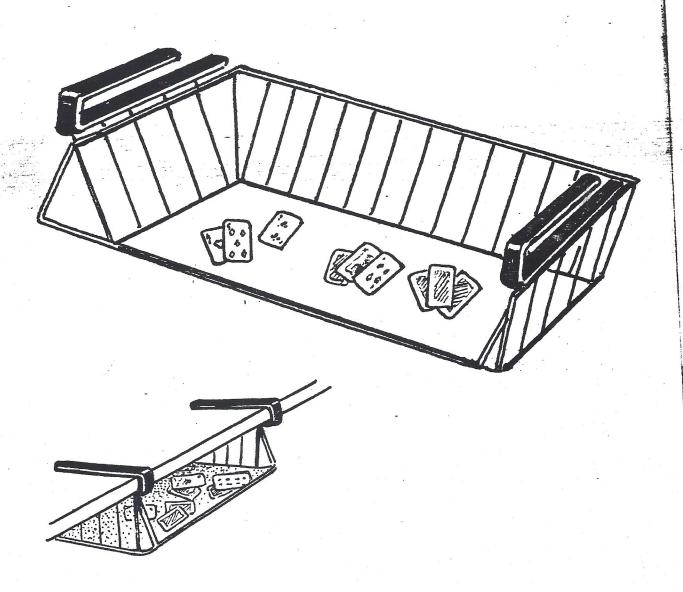
There are on the market now, diminutive clothes pegs (intended for use with nylons and as space-savers for travelling) which are very useful for clipping to the pages of a book as they are not as bulky as the full size pegs.







A card tray



An undershelf basket makes a satisfactory substitute for a Card Tray.

Cut a piece of cardboard to fit the base and cover with green baize Contact. Paint the frame dark brown.

Two Playing card stands

MATERIALS REQUIRED

Two pieces of hard wood (mahogany or oak); a fretsaw for cutting the grooves; strong glue for sticking the two platforms together.

THE simplest way of making this is from two separate pieces of wood,

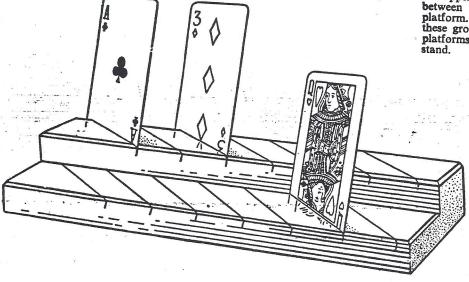
the smaller one being fixed flush along three sides on top of the other to form the two platform levels.

The dimensions of the larger piece of wood (forming the base of the stand and lower platform) are 11 in. by 4 in. and 2 in. in thickness, while the upper platform is made from a

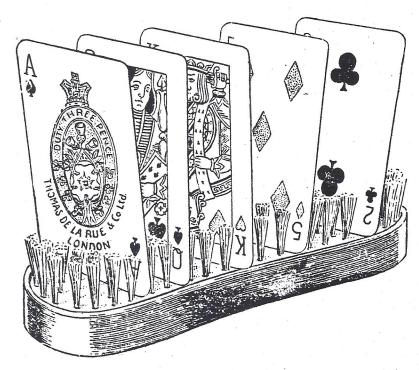
piece of wood measuring 11 in. by 2 in. and $1\frac{1}{2}$ in. thick.

In and 1½ in. thick.

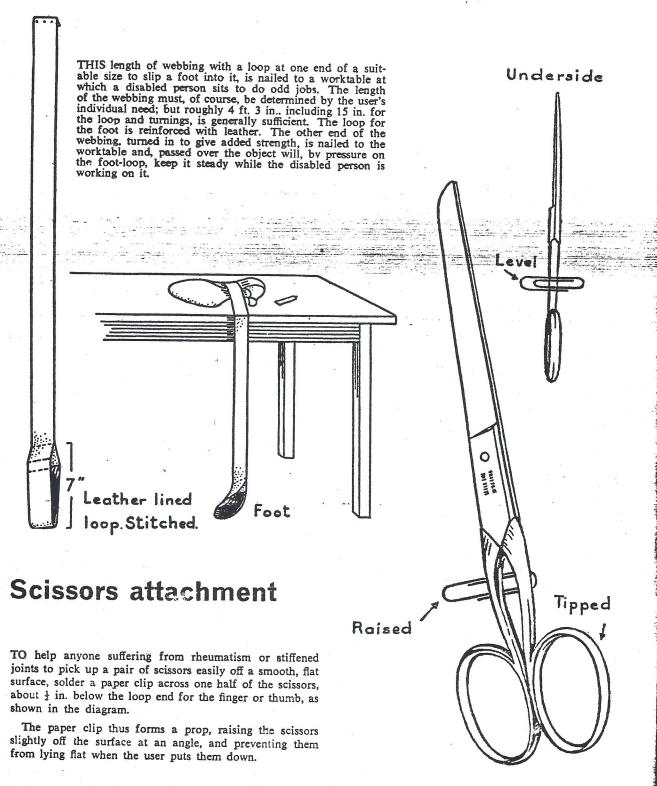
The thirteen grooves, or slots, that hold the playing cards, are best made with a fretsaw, cutting diagonally into the wooden platforms to a depth of ½ in. They are spaced 1½ in. apart, and the grooves along the upper platform are cut to lie in between those made on the lower platform. It is advisable to make these grooves before gluing the two platforms together to complete the stand.

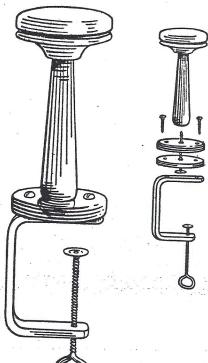


WE suggest an Addis nylon scrubbing brush as being the most suitable to use in this way. The playing cards stand up well between the bristles and are easy to take out and slip in for a disabled person who has the use of only one hand.



Foot Stirrup





Darner for the one-handed

MATERIALS REQUIRED

A wooden darning mushroom; a small joiner's clamp; a pair of plastic door roses (obtainable from Woolworths); two fo in. bolts; a I in. flat-head screw; a fo in. steel washer.

FIRST level the curved end of the darner's handle and shape it to fit into the recess in the centre of the door roses. Drill a small hole in the base of the handle to take the screw.

Drill two holes in the clamp to correspond with the positions of those of the door roses, but slightly smaller in size. Tap out these holes to $r_{\rm 0}$ in, for fixing the door roses to the clamp later.

After fitting the darner handle into the recess provided by the two door roses held together, place the steel washer on the underside of the second rose and fix all firmly together with the screw rassing through gether with the screw passing through the hole in the washer, the two roses and up into the handle of the darner as far as it will go.

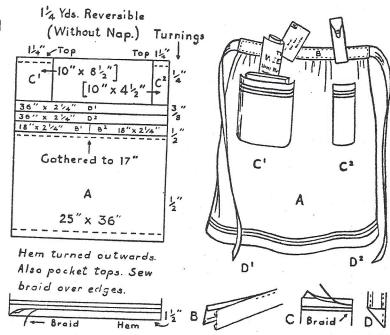
Now secure the darner to the clamp by bolting it through the holes provided in the roses. If the ends of the two bolts jut out on the underside of the clamp, file them off level.

Most of these darners have a small groove round the mushroom top, and when the article to be mended is placed over it, an elastic band put round the article, and in the groove will help to hold it firmly in position. If there is no groove an elastic band can be slipped down the handle of the mushroom, pulling the material taut first.

Kangaroo Apron

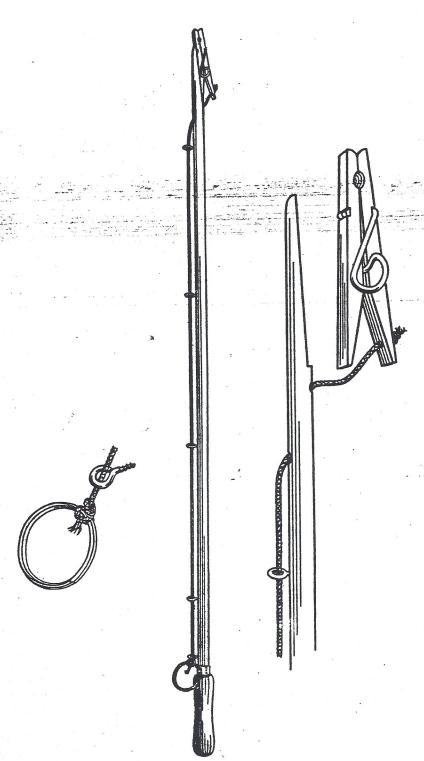
THIS apron is designed for elderly or other handicapped people when both their hands are occupied by having to use two sticks for getting about.

The various pockets are for holding spectacles, a book, newspapers and the other articles they like to keep handy.



Retrieving AIDS

ROD WITH CLOTHES PEG OPERATED BY CORD AND RING



MATERIALS REQUIRED

One $\frac{1}{18}$ in. dowel stick (obtainable at a timber merchants or handcraft shop) approximately 32 in. long; one spring clothes peg made of wood; about $\frac{1}{18}$ yard of picture cord; five small screw-eyes, the holes must be large enough for the picture cord to be passed through; a key ring; two very small brass screws.

FIRST dismantle the clothes peg. Then splice the dowel stick as far as about 2½ in. away from the top, and lay one half of the clothes peg along the splicing so that the end of the dowel stick meets the point where the spring of the clothes peg holds the two halves together (about ½ in.). Screw the clothes peg to the dowel stick by means of the small-brass screws.

Drill a hole through the other half of the clothes peg, about \(\frac{1}{2} \) in. away from the end, large enough for the picture cord to pass through. Drill a hole large enough to take the cord also, diagonally through the dowel stick about 2\(\frac{1}{2} \) in. down from the tip of the spliced end.

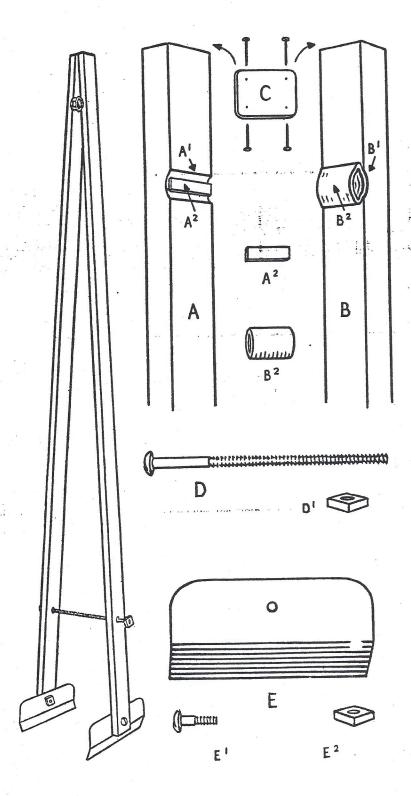
Insert one of the screw-eyes into the dowel stick about $6\frac{1}{4}$ in. away from this hole; and then insert the others along the stick at regular intervals.

Rrassemble the clothes peg. After making a large knot, thread the picture cord through the hole made for it in the clothes peg, pass it through the hole in the dowel stick and continue threading it through the screw-eyes all the way up the stick until the last one is reached.

At this point fasten the key ring firmly to the picture cord with a good strong knot close up to the screw-eye.

If desired a handle can be fitted on the dowel stick (as shown in the illustration). This finishes it off nicely and helps to make an easier grip for the patient when pulling on the key ring, which acts as a trigger for opening the clothes peg and gripping an object. This does not open very wide but it is extremely useful for picking up small articles and papers which have a habit of slipping off laps.

'Picker-Up'



THIS aid is particularly light but effective for picking up articles which are out of reach on floors, tables or shelves.

MATERIALS REQUIRED

Two strips of wood 25 in. long, in. wide and in. thick (A & B); one bolt 3 in. long and in. in diameter (D); two nuts (D1); two pieces of aluminium, each 2i in. by 1i in. (E); a small piece of rubber

tubing $\frac{1}{4}$ in. long (B2); a small piece of aluminium $\frac{5}{4}$ in. by $\frac{1}{4}$ in. (C); four very small panel pins, approximately $\frac{3}{10}$ in, long; two small nuts and bolts, approximately $\frac{1}{4}$ in. long (E1 & E2).

BEND the two pieces of aluminium (E) lengthwise slightly to an angle of approximately 120°. Drill a ½ in. hole in each piece at the centre and in. from one edge. Drill a in. hole at one end of each of the pieces of wood, approximately in. from the end. Fix the pieces of aluminium to these ends of the pieces of wood with the small nuts and bolts (E1 & E2), thus making the grip for the tongs. Make a groove (A1 & B1) with a round file 2 in. from the other end, on what is now the inner side (A1 & B1) of each piece of wood. Insert the piece of rubber gas tubing into the grooves (B2 into A1 & B1), fixing it with glue on one side only. This produces a slight suction action at the handling end of the tongs. Holding both pieces of wood together firmly, join them by fixing the small piece of aluminium (C) over the ends with the four small panel pins. Drill a 1 in. hole through the gripping end of each arm of the tongs, in the centre and 4 in. from the ends. From the outside put long bolt through one hole and fix the head end of the bolt with one of the nuts on the inner side of the wood. Insert bolt through the other hole and put the second nut on the end, thus allowing for free movement through the hole of this end of the bolt. The fact that one end of the bolt is fixed and the other mobile, gives a spring action to the gripping end of the tongs.

Pick-up Stick with Stand

Clothes Peg Stand enlarged. Applied Blocks Base 4" x 4"

MATERIALS FOR PICK-UP: Two lengths of wood 27 in. (1\frac{1}{2} in. wide, \frac{1}{2} in. thick); wooden clothes peg; length of dowel stick 2\frac{1}{2} in. (\frac{1}{2} in. thick); two plain washers; small contracting spring; small split pin.

CLAMP the two lengths of wood together edgewise in a vice. Drill (or reamer) a 3 in. hole (see diagram D), 11 in. from the nipper-tips, i.e. opposite ends to A1 and A2. Shape the lengths of wood, waisting them about halfway down as shown in the diagram. This reduces the weight of the aid. Return the lengths of wood to the vice and laying them flat, drill another 1 in. hole through both at C, 81 in. from the nipper-tip ends (D). Chamfer these ends to resemble tongs, making the nipper-tips; and glue emery paper, cut to size, along their inner surfaces. These provide an improved grip when picking up an object. Mark position for the clothespeg (see diagram B), 11 in. down on inner surfaces of A1 and A2. Take peg to pieces and glue and screw each half with small screws to the two lengths of wood. It is most important that the halves of the clothes-peg are exactly opposite each other after being screwed to the lengths of wood. Replace clothes-peg spring. Drive the piece of dowelstick horizontally through the hole marked C on diagram, making sure it is a very tight fit for A2 and a sliding fit for A1. Drill a very small hole through one end of the dowel to take a split pin. Slip one small washer over the dowelstick (3B), fit the small spring (2), the second washer (3A) and the split pin. To finish cover handle of A1 with Contact

The stand on which the pick-up stick is clipped to hold it when not in use, is made with a block of wood for the base 4 in. by 4 in. and $\frac{1}{4}$ in. thick. To this another block of wood, 4 in. in height and $\frac{1}{4}$ in. thick is glued and screwed upright (corners trimmed in diagram). Two pieces of dowel are nailed on one side of it, inclining slightly outwards and forming a gap to take the nipper-tips, E1.

C 1 Peg 23/4x/5. One end rigid 2 1"Spring. 3^ Washer glued. 38 Free. 4 Split pin through peg.

Leather on outside. (One handle only.) Plane inside upwords: Peg hinge 2 - 13 at handle. Glue peg. Il" down. Waist 3" Overall Size Cut: 27 x 12 x 2" Nipper Tips
Emery paper-

Battens A' and A2

Use

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TOYS FOR HANDICAPPED CHILDREN



For Modelling

MATERIALS
2 cups Flour
1 cup Salt
2 tablespoons Cooking Oil
1 cup Water
Food Colouring

TO MAKE
Mix all ingredients together until
easy to handle.
Store in an air-tight tin.



Stick cotton reels on GIANT JIGSAW PUZZLE PIECES to make them easy to pick up.

DRAUGHTS can be made by painting cotton reels black and white.

Use painted cotton reels for SNAKES AND LADDERS AND LUDO COUNTERS.



An easily handled DICE can be made by sticking coloured adhesive dots to a wooden building block and painting with non-toxic varnish.

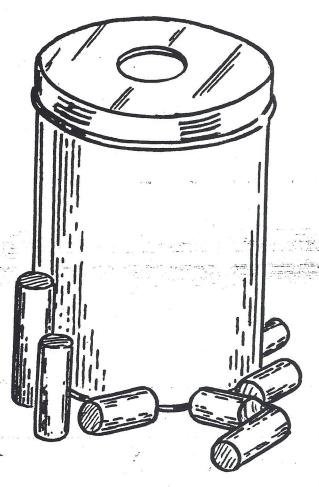


SKITTLES

Use 6 empty washing up liquid bottles and a large plastic ball.



Posting Box



Many handicapped children find the conventional posting boxes with four, five or six different shapes confusing. They can get a lot of fun and sense of success from this simple home made one.

MATERIALS REQUIRED
An empty 7lb jam or marmalade tin (The type with a plastic lid). Fablon (in a bright colour), Length of Dowelling.

TO MAKE
Make sure the tin has a smooth edge
Cover with Fablon, taking it over the rim to a depth of 1" inside tin. Cut dowelling into various lengths and sand to give a smooth pleasant feel. Cut a small circle out of the plastic lid.

When the children have mastered using one hole, make another lid with two or three holes in it, and later add a square and provide the shape to go with it.

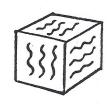
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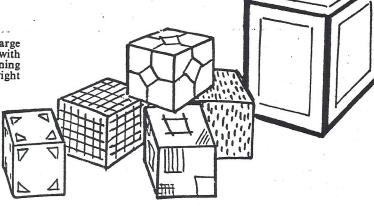
Make building easier by sticking VELCRO—the touch and close fastener—to Plastic Bricks.



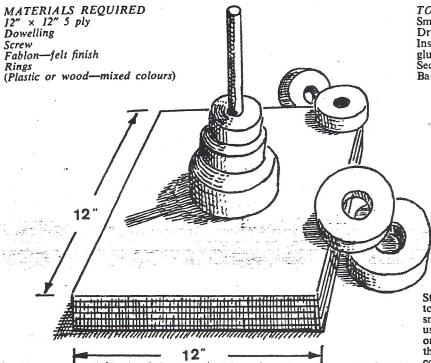
Empty Corn Flake boxes make large easily handled bricks. Stuff with crumpled newspaper, seal the opening with Selotape and cover with bright coloured wallpaper or Fablon.







Threading Board



TO MAKE
Smooth edges
Drill hole in centre of board
Insert dowelling—use a good wood
glue
Secure with countersunk screw in base
Back with felt finish Fablon

Start by giving the child large rings to place on the board, and then smaller ones. When the child masters using the board make one with two or three dowel rods, and encourage the child to sort the rings into colours.

Foam Rubber Bricks

MATERIALS REQUIRED
To make 4 bricks 3" × 3" × 3"
Synthetic Sponge 9" × 5" × 3"
Felt or bright coloured material

TO MAKE
Cut Sponge pattern (using small hacksaw)
Cover with felt or bright coloured material

